

REMARKS

Claims 1, 3, 4, 7 through 10, 16, 18 through 21, and 24 through 29 are pending in this application. Claims 1, 16, 26, 27 and 29 are amended in several particulars for purposes of clarity in accordance with current Office policy, to assist the examiner and to expedite compact prosecution of this application. Claims 2, 5, 6, 11 through 15, 17, 22 and 23 have been canceled without prejudice or disclaimer of its subject matter. The Applicant appreciates the Examiner's indication of allowability concerning claims 2, 17, 26, 27 and 29.

I. REJECTION OF CLAIMS (35 U.S.C. § 103)

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the

reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

A. Claims 1, 3-4, 7-16, 18, 19 and 24-25 are rejected under 35 U.S.C. 103(a) as obvious over Bassetti et al (5,757,338). The Applicant respectfully traverses.

1. The Examiner states that Bassetti teaches the spread spectrum unit(74) is provided between the graphic processing unit(72, 52, 54, 56) and the LCD(22) because it would have been obvious to have a spread spectrum unit(74) locate between the graphic processing unit(72, 52, 54, 56) and the LCD(22) since such modification would have involved a mere change in the location of the spread spectrum unit(74) and it is generally recognized as being within the level of ordinary skill in the art.

In paper no. 8, the Examiner states that Bassetti teaches a motivation to modify by Bassetti teaching the locations or configurations of the spread spectrum unit(74); graphic processing unit(72, 52, 54, 56) and the LCD(22) could be changed(see column 8, lines 18-23).

However, looking at col. 8, lines 18-23 only states that “many different ways to integrate spread-spectrum into the controller are possible. Many different configurations are even possible

when the modulated clock is applied to the LCD path and not to the CRT path.” For Bassetti to state that are “many different” ways for “many different configurations” is a very general statement that could mean anything.

“Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability. *In re Dembiczak*, 175 F.3d 994, 50 USPQ.2d 1614 (Fed. Cir. 1999). The showing must be “clear and particular” without broad generalized conclusory statements. *Id.* There must be specific statements showing the scope of the suggestion, teaching, or motivation to combine the prior art references. *Id.* at 1000. There must be an explanation to what specific understanding or technical principle would have suggested the combination of references. *Id.* Respectfully, the motivation given by the examiner of “many different” ways for “many different configurations”, is a broad generalized conclusory statement and not a reason to modify the reference. There is no specific teaching or suggestion of having the spread spectrum unit between the graphic processing unit and the LCD and to suggest otherwise would then use the present invention as a blueprint for piecing together the prior art to defeat patentability.

Moreover, as stated in MPEP §2144.04, “However, “The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant’s specification, to make the necessary changes in the reference device.” *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351,

353 (Bd. Pat. App. & Inter. 1984).” (emphasis added) .

In paper no. 8, the Examiner provides the motivation that there “many different” ways for “many different configurations”, but this reasoning does not make the necessary changes in the reference device without the benefit of appellant’s specification as MPEP §2144.04 prohibits.

Respectfully, the Examiner is failing to provide a *prima facie* case by just stating that it is obvious due to it being a “mere” change of location. This is a conclusion and not a reason for rejection. Moving the graphic processor unit in Bassetti would quite obviously change the signals generated, and so modifying Bassetti would be improper.

As the MPEP §706.02(j) states, “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” Here, not all of the claimed limitations are taught. The Examiner fails to mention the motivation to modify Bassetti so the spread spectrum is located in position as claimed in the invention.

Moreover, as stated in MPEP §2144.04, “However, “The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness.” The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant’s specification, to make the necessary changes in the reference device.” *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).” (emphasis added)

Therefore, the mere fact that one could even rearrange the part is not enough to show obviousness in Bassetti as Bassetti fails to show any kind of motivation to change the location.

Furthermore, the Examiner states that it is generally recognized as being within the level of ordinary skill in the art, the modification of the spread spectrum being between the graphic processing unit and the LCD. Concerning the Examiner reasoning that it is “known in the art”, the Examiner is using his own knowledge instead of providing references that teaches or suggest such statements. The Applicant then asks the Examiner to provide a reference of such and an affidavit by the Examiner stating that such is known in the art. Under MPEP 2144.03, there are new procedures that the Examiner must take in providing substantial evidence when there is reliance on common knowledge in the art or “well known” prior art. The Examiner here by stating such is known in art has failed under the standards set under MPEP 2144.03.

Furthermore, claims 1 and 16 also includes the spread spectrum provided between said graphic processing unit and LCD transmitter and in the rejection concerning claims 1 and 16, the Examiner is still mentioning the LCD and not the LCD transmitter.

Concerning claim 22, the Examiner states that Bassetti et al teaches the spread spectrum unit(74) being arranged between the graphic processing unit(72, 52, 54, 56) and the LCD display transmitter(62)(see figure 7 and column 9). However, claim 22 has been cancelled. However, looking at claim 22 in terms of claim 1 and 16, it can be seen that spread spectrum unit is arranged between the graphic processing unit and the LCD transmitter as seen below.

If the Examiner is stating that the graphic processing unit is units 72, 52, 54 and 56, then clearly unit 74 is not between the graphic processing unit and the LCD controller 62. To state that

it is would be stretching the disclosure of the reference. The signal path in figure 7 shows that both reference 56 (part of the graphic unit) and the clock modulator 74 sends a signal to the LCD controller 62. Therefore, the clock modulator 74 cannot be in between the graphic unit and the LCD controller 62. There is clearly no teaching or suggestion.

2. The references used by the Examiner (72, 52, 54, 56) fails to teach or suggest the graphic processing unit of the claimed invention. For example, claim 1 claims, “a graphic processing unit for converting the image signal provided from at least one of said central processing unit and a memory *into a signal accommodating display on said liquid crystal display*” and claim 9 claims “converting the image signal provided from at least one of said central processing unit and a memory *into a signal accommodating display on said liquid crystal display*”. Clearly references 72, 52, 54 and 56 fail to teach or suggest the conversion of the signal into a signal accommodating display on the LCD because in col. 8, lines 52 to col. 9, line 33 of Bassetti, it mentions *LCD controller 62 performs the formatting of the pixels and gray-scale conversion so that the pixels are in a format accepted by LCD display 22*. Therefore, it is only with the LCD controller 62 that the signal is converted into a signal that accommodates display on the LCD.

Therefore, if reference 62 must also be included, then Bassetti is further problematic in teaching the claimed invention.

In paper no. 8, the Examiner argued that since thee graphic processing unit(72, 52, 54, 56) for converting an image signal output from a memory(50) from a memory clock frequency to a video

clock frequency, which is a signal accommodating display on the liquid crystal display(22)(see column 8, lines 65-68 and column 9, lines 1-27).

However, as seen specifically in col. 9, line 33 as mentioned above and cited by the Examiner, it is the LCD controller 62 that converts the image signal into a format acceptable by the LCD display and therefore, the graphic processor unit 72, 52, 54, 56 does not.

B. Claims 1, 3, 7-11, 16, 18, 24-25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al(6,229,513) in view of Chen(6,433,766). The Applicant respectfully traverses.

1. Respectfully, reference 170 and 160 are clearly not a graphic processing unit. As seen in figure 1 of Nakano, 170 is a transmitter and 160 is the receiver of an LVDS transmission. References 170 and 160 cannot convert an image signal provided from at least one of the CPU and a memory into a signal displayed on as the Examiner suggests.

In paper no. 8, the examiner disagrees with that since Nakano et al teaches a graphic processing unit(170, 160) for converting an image signal provided from at least one of the central processing unit(180) and a memory into an LCD display timing image signal(see figure 1; column 4, lines 59-67 and column 5, lines 1-9).

However, looking at col. 4, lines 59-67 to col. 5, lines 1-9, transmitter 170 and receiver 160 form a semiconductor integrated circuit LSI which is disposed between an output stage of graphic

controller 180 on the computer side and the input stage of a display control unit 110. The transmitter 170 converts the signal from the graphic controller 180 from a parallel form to a serial form and sends the serial signal to the receiver 160 and then the receiver 160 converts the signals into the original parallel signals.

Transmitter 170 and receiver 160 are a part of the low voltage differential signaling (LVDS) which is a low power, low amplitude method for high-speed data transmission over copper wire. A person of ordinary skill in the art would not confuse the transmitter 170 and 160 with a graphic processing unit. The conversion made by the transmitter and receiver are for the purpose of low power high speed transmission and not related to the graphics unit.

2. Nakano as modified by Chen does not teach the spread spectrum unit between the LCD transmitter and the graphic processing unit on pages 16 and 17.

In paper no. 8, the examiner disagrees with that since Nakano as modified by Chen teach the spread spectrum unit(34) between the LCD transmitter(130) and the graphic processing unit(170, 160)(see Nakano's figure 1 and Chen's figure 3).

However, the Examiner corresponds reference 130 of Chen to the LCD transmitter, but 130 is the drain drivers disposed above the LCD panel 10. In claim 1 of the present invention, the LCD transmitter transmits the image to the liquid crystal display and here, 130 is part of the LCD. 130 is not the LCD transmitter. Furthermore, as mentioned above, 170 and 160 are also not the graphic processing unit. These correlations are highly improper and would have problems holding up in an appeal of the rejection.

Moreover, Chen is then teaching that the spread spectrum unit is included in a controller 34. If the controller 34 of Chen is combined with the controller 110 of Nakano, then the spread spectrum unit would be in the control unit which would transmit the image signal to the liquid crystal display. Therefore, the spread spectrum then could be in the LCD transmitting unit and not between the graphic unit and the LCD transmitter.

3. Furthermore, Nakano is teaching away from using a spread spectrum unit as Nakano's invention includes certain clock signals as seen in figure 16B of Nakano. According to MPEP §2145, "It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). This portion of Nakano cannot be just ignored because according to MPEP §2141.02, "A prior art reference must be considered in its entirety, *i.e.*, as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)."

4. Concerning claim 28, the Examiner states that Chen teach the spread spectrum unit(34) being installed on the clock signal line in accordance with the size of electromagnetic interference(see figures 2-5; column 2, lines 1-20; column 3, lines 53-68 and column 4, lines 1-23). However, figures 2-5 shows an analysis of the frequencies of the two clock signal lines in figure 4 and the EMI spectrum in figure 5, but there is no actual teaching or suggestion of spread spectrum unit being installed according to the size of the EMI.

II. CLAIM REJECTIONS - 35 U.S.C. § 102

Claims 1, 3-4, 7-16, 18, 19 and 24-25 were rejected under 35 U.S.C. §102(b) by Bassetti et al(5,757,338). The Applicant respectfully traverses.

No claim is anticipated under 35 U.S.C. §102 (b) unless all of the elements are found in exactly the same situation and united in the same way in a single prior art reference. As mentioned in the **MPEP §2131**, “a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Every element must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (CAFC 1989). The identical invention must be shown in as complete detail as is contained in the patent claim. *Id.*, “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970), and MPEP 2143.03.

As shown above, not all of the limitations are disclosed in Bassetti as arranged in the claims, therefore, Bassetti does not anticipate the presently claimed invention.

III. Allowable Subject Matter

Claims 2, 17, 26-27 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Applicant appreciates the Examiner's indication of allowability pertaining to claims 2, 17, 26-27 and 29. Therefore, according to the suggestion of the Examiner, the claims have been rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 2 was incorporated in its independent base claim 1 and claim 17 was incorporated in its independent base claim 16. Since claim 2 was incorporated into claim 1, claims 26-27 and 29 were adjusted to depend on independent claim 1.

As shown above, all of the amended claims are still allowable without the amendments and the cancelled claims are also allowable since the rejections are improper as shown above. However, in the interest of expediting the compact prosecution of this application, the claims were amended according to the suggestion of the Examiner.

Entry of the foregoing amendments to claims 1, 16, 26, 27 and 29 is proper under 37 C.F.R. 1.116(b) because those amendments simply follow the suggestion made by the Examiner in the final rejection, no new issues are raised, no further search is required, and the foregoing amendments are believed to remove the basis of the outstanding rejections and to place all claims in condition for allowance.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the Examiner is asked to contact the Applicant's attorney.

No fee is incurred by this Amendment. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



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